Stages and North Carolina End-of-Grade Assessment

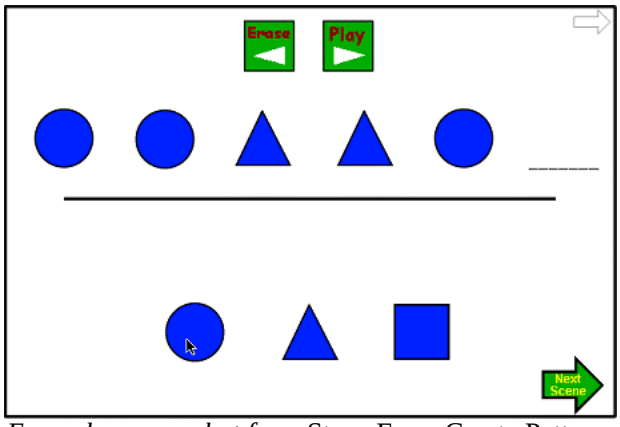
OVERVIEW

Stages includes two major software components: (a) informal benchmark software and (b) curriculum software. Stages informal assessment software is instructional in nature, providing activities with constructive feedback and opportunities for the learner to explore and choose. Stages curriculum software is a collection of interactive daily instructional programs appropriate for learners at each Stage.

Stages software enhances the North Carolina special education assessment process because:

1. **Stages correlates with the content of North Carolina Mathematics and English Language Arts Course of Study curricula.**
2. **Stages generates evidence for the learner's alternate assessment portfolio.**
3. **Stages assists the learner's IEP and/or instructional teams with selecting assistive technology and assessment tools.**

1. Stages correlates with the content of North Carolina Mathematics and English Language Arts Course of Study curricula.
Stages provides learners with meaningful opportunities for participation in general curriculum areas because the activities are accessible. Please refer to the next section, "How Stages Correlates with North Carolina Course of Study Curricula," for detailed matching between Stages informal assessment activities and specific academic performance indicators.



Example screen shot from Stage Four: Create Patterns

2. Stages generates evidence for the learner's alternate assessment portfolio.
During Stages software activities, the instructor can quickly print directly from any screen to capture a learner-generated product. At the end of each activity, a report with data about the time spent, choices made, response accuracy or work product, input method, prompt type, and time/date stamp are displayed with the learner's name. The instructional team member may wish to then print that screen or save the information as a text-format electronic file. The file can later be opened in any text program (such as MS

Word or SimpleText) or spreadsheet program (such as Excel), and printed for the portfolio to show progress in a standard learning content area.

Observation guidelines and forms in the Stages kits help the instructor make the most out of an activity session as the data-gathering features of the software enable the observer to focus on noting the learner's behavior and thinking-out-loud responses. Two adults from the instructional team can work together: one adult can encourage the learner and the other can note valuable data about behaviors without being noticed by the learner. Alternatively if a video or still camera is available, it may be directed at the learner and the computer monitor to discreetly record interactions and other behaviors while one adult coaches. Over time, the collected data during these regular activities will provide primary evidence that the instructional team needs to build a complete picture of the learner's skill achievement. The feedback in Stages activities is encouraging and rewarding, providing a relaxed setting for exploring topics and demonstrating skills on a regular basis. During the sessions, the learner will be less conscious of her performance being recorded, making her responses more candid.

3. Stages assists the learner's IEP team with selecting assistive technology and assessment tools. An objective of Stages software is to provide several options for input methods and other settings so that the learner's IEP team can determine his ideal learning and communication environment. Different devices, auditory feedback, speeds and prompts are among the variables. Using activities in Stages One and Two, the IEP team can document progress for a learner who is just beginning to discover access devices and concepts of cause and effect.

SUMMARY

Stages is a comprehensive tool that augments the North Carolina special education assessment cycle. Stages can assist the IEP team in collecting valuable alternate assessment portfolio evidence. Stages provides learners with meaningful access to general curriculum areas. The IEP team can use Stages to determine assessment strategy, accommodation needs, and discover the learner's abilities and thinking approach.

How Stages Correlates with North Carolina Course of Study Curricula[1]

Mathematics Grades K-3
Goals and Competencies

1. NUMBER SENSE, NUMERATION, AND NUMERICAL OPERATIONS

Kindergarten: The learner will recognize, model, and write numbers through 10.
1.01 Model numbers in a variety of ways.
1.03 Use 1-1 correspondence to identify how many (0 - 10).
1.04 Recognize numerals and match to sets 0 - 10.
1.05 Write numerals 0-9 in meaningful contexts.

Grade 1: The learner will read, write, and model numbers through 100 and compute with whole numbers.
1.05 Read and write numerals to 100.
1.06 Read number words zero to ten.

Related Stages Assessment Activities:
Stage Four: *Math Readiness:* Number ID, Counting

- In Stage Four *Number ID*, the learner identifies numerals 0 through 10 in the context of a telephone keypad and elevator floors. *Counting* includes simple animations of familiar objects to help keep the learner engaged in the activity.

Grade 1, continued.
1.14 Model concept of addition; know the combinations for sums to 10.
1.15 Model concept of subtraction as take-away, comparison, and missing addends.
1.18 Find sums and differences using counting strategies such as counting on and counting back.
1.19 Memorize addition and subtraction facts to 10.
1.22 Create and solve problems using addition and subtraction. Use problem-solving strategies: modeling with manipulatives, acting out, drawing, using diagrams; use calculators as appropriate. Explain solutions.

Grade 2: The learner will read, write, and model numbers through 1000, and compute with numbers less than 1000.
1.10 Use problem-solving strategies such as diagrams, organized lists, manipulatives, act out, guess and check, pictures; use calculators when appropriate.
1.16 Memorize addition/subtraction facts up to 18.
1.17 Add 2- and 3- digit numbers with and without regrouping.
1.18 Use addition/subtraction strategies to solve problems.

Related Stages Assessment Activities:
Stage Five: *Math:* Charts and Graphs, Math Facts (+, -), Word Problems (+, -)

- Stage Five *Charts and Graphs* present the learner with familiar topics such as favorite ice cream flavor and zoo animals. *Math Facts* and *Word Problems* include questions with and without regrouping.

[1] Information found in North Carolina Mathematics and English Language Arts Curricula by the North Carolina Department of Public Instruction. Document source: http://www.dpi.state.nc.us/curriculum (Accessed February 6, 2002).

Grade 2, continued.
1.19 Divide regions/sets into halves, thirds, and fourths. Record in fractional form.
1.20 Model repeated addition (multiplication) and sharing equally (division); record solutions.

Grade 3: The learner will model, identify and compute with numbers less than 10,000.
1.04 Use estimation techniques in determining solutions to problems.
1.08 Model equivalent fractions using manipulatives and pictures.

Related Stages Assessment Activities:
Stage Five: *Math:* Fractions, Math Facts (x, ÷), Word Problems (x, ÷)
Problem Solving: Number Guess

· Stage Five *Fractions* asks the learner to identify fractions of whole objects and groups of objects. The learner uses basic operations and an onscreen number line to solve problems in *Math Facts. Word Problems* includes real-life problems with and without graphical aids.

2. SPATIAL SENSE, MEASUREMENT, AND GEOMETRY

Kindergarten: The learner will explore concepts of geometry and non-standard measurement.
2.01 Recognize basic two-dimensional (plane) figures: circle, square, triangle, and rectangle. Describe their likenesses and differences and identify them in the environment.
2.04 Model and use directional and positional words.

Grade 1: The learner will recognize, describe and identify simple geometric shapes and forms, and exhibit skills in using measurement.
2.01 Recognize, identify, and describe plane geometric figures: circle, square, triangle, rectangle.
2.05 Use directional and positional words.
2.06 Describe and compare characteristics of geometric figures.

Grade 3: The learner will recognize, understand, and use basic geometric properties, and standard units of metric and customary measurement.
2.05 Observe and describe geometry in the environment.

Related Stages Assessment Activities:
Stage Four: *Math Readiness:* Estimating, Spatial Relationships
Shapes: Explore and Assess
Stage Five: *Problem Solving:* Shape Mystery

· Stage Four *Estimating* and *Spatial Relationships* focus on the development of the learner's math vocabulary concepts. *Shape* activities ask the learner to identify shapes in isolation and in scenes, at different levels of abstraction (drawing, photo).
· Stage Five *Shape Mystery* gives the learner a chance to demonstrate knowledge of shape characteristics such as number of sides.

Grade 1, continued.
2.11 Tell time to nearest hour using digital and analog clocks.

Grade 2: The learner will recognize, understand, and use basic geometric properties, and standard units of metric and customary measurement.
2.11 Tell time to the nearest half-hour using digital and analog clocks; record. Solve problems related to time.
2.12 Determine the value of sets of coins (pennies, nickels, dimes, quarters); record using appropriate notation.
2.13 Make different sets of coins with equivalent values.
2.14 Identify coins needed to buy items priced at $1.00 or less.
2.15 Solve problems using money. Estimate costs and make change using coins up to $1.00.

Grade 3, continued.
2.08 Model the concepts of area and perimeter using concrete materials, non-standard, and standard units. Estimate, record, and explain results.
2.09 Determine the value of sets of coins to $5.00 and create equivalent amounts with different coins.
2.10 Estimate and compute the cost of items up to $5.00; make change up to $5.00.
2.11 Tell time to the nearest minute with digital and analog clocks; record. Solve problems related to time.

Related Stages Assessment Activities:
Stage Six: *Explore:* Telling Time, Using Money
Assess: Telling Time, Money Names, Money Equivalents, Counting Money

· Stage Six activities are tied in with scenes from daily activities of various characters during work and leisure.

3. PATTERNS, RELATIONSHIPS, AND FUNCTIONS

Kindergarten: The learner will model simple patterns and sorting activities.
3.03 Identify, copy, continue, and describe patterns.
3.04 Create patterns with actions, words and objects.

Grade 1: The learner will demonstrate an understanding of classification, patterning, and seriation.
3.03 Copy, continue, and record patterns with actions, words and objects; translate into other forms.
3.04 Create and record patterns. Identify and name the pattern unit or numerical sequence.

Related Stages Assessment Activities:
Stage Four: *Math Readiness:* Explore Patterns, Continue/Fill-In Patterns, Create Patterns

· The learner creates and extends simple patterns using color, shape and sound.

Grade 1, continued.
3.01 Describe and compare objects by their attributes; order sets.

Grade 2: The learner will demonstrate an understanding of classification, patterning, and seriation.
3.06 Solve simple logic problems.

Related Stages Assessment Activities:
Stage Five: *Problem Solving:* Number Guess, Mystery Shape, Mystery Person

· *Number Guess* asks the learner to deduce a secret number based on feedback (e.g. "That number is too high"). Similarly, in the other Stage Five *Mystery* activities, the learner discovers the correct mystery shape or person by eliminating those that do not fit the attribute clues given in the activity.

4. DATA, PROBABILITY, AND STATISTICS

Grade 1: The learner will demonstrate an understanding of data collection, display, and interpretation.
4.02 Answer questions about charts and graphs.

Grade 2: The learner will demonstrate an understanding of data collection, display, and interpretation.
4.02 Summarize and interpret information in charts, graphs, and tables; make predictions.

Related Stages Assessment Activities:
Stage Five: *Math:* Charts and Graphs

- The learner can demonstrate skill in solving problems based on visual display of quantitative information and textual clues in Stage Five *Charts and Graphs*

Reading Language Arts Grades K-3
Goals and Competencies

1. THE LEARNER WILL DEVELOP AND APPLY ENABLING STRATEGIES AND SKILLS TO READ AND WRITE.

Kindergarten:
1.01 Develop book and print awareness.
1.02 Develop phonemic awareness and knowledge of alphabetic principle.
1.03 Demonstrate decoding and word recognition strategies and skills.
1.04 Read or begin to read.

Grade 1:
1.02 Demonstrate decoding and word recognition strategies and skills.

Related Stages Assessment Activities:
Stage Four: *Reading Readiness:* Letter ID, Letter Sounds
Stage Five: *Reading:* Sounds, Meaning, Context
Stage Six: *Stories:* Cody, Mitchell, Meg, Adam, Ryan

- The learner demonstrates phonemic awareness and knowledge of alphabetic principles in Stage Four *Letter* activities. Upper case and lower case letters are presented separately.
- Stage Five introduces the learner to high-frequency words, simple rhyming sentences, and interactive scenes depicting one-syllable vocabulary words.
- Stage Six *Stories* are learner-paced short illustrated passages. They combine photographs, text, and/or sound to reinforce the learner's concept of word meanings. The learner can demonstrate understanding of the concept of print by following along while the story is presented.

2. THE LEARNER WILL DEVELOP AND APPLY STRATEGIES AND SKILLS TO COMPREHEND TEXT THAT IS READ, HEARD, AND VIEWED.

Grade 1:
2.09 Read and understand simple written instructions.

Grade 2:
2.08 Interpret information from diagrams, charts, and maps.

Related Stages Assessment Activities:
Stage Two: *Nouns, Verbs, Attributes*
Stage Three: *All Activities*
Stage Five: *Math:* Charts and Graphs, Word Problems (+, -, x, ÷), Geometry, Fractions
Problem Solving: Letter Scramble, Making Words, Mystery Shape, Mystery Person

- Stage Two *Nouns, Verbs,* and *Attributes* activities expose the learner to new vocabulary.
- Stage Three activities extend the vocabulary from Stage Two and ask the learner to recognize objects, identify their functions and classify them.
- Learners in Stage Five listen and/or read for instructions and clues to learn how to solve problems.

3. THE LEARNER WILL MAKE CONNECTIONS THROUGH THE USE OF ORAL LANGUAGE, WRITTEN LANGUAGE, AND MEDIA AND TECHNOLOGY.

Grade 1:
3.04 Share personal experiences and responses to experiences with text.

Grade 3:
3.05 Compare and contrast printed and visual information (e.g., graphs, charts, maps).

Related Stages Assessment Activities:
Stage Five: *Math:* Charts and Graphs
Stage Seven: *Making Stories*

- The learner consults graphical labels for information necessary to make conclusions in Stage Five *Charts and Graphs*. This activity asks learners to interpret chart data that involves common items such as animals and money.
- Stage Seven *Making Stories* give the learner a way to express her experiences and interpretations in written form.

4. THE LEARNER WILL APPLY STRATEGIES AND SKILLS TO CREATE ORAL, WRITTEN, AND VISUAL TEXTS.

Kindergarten:
4.01 Use new vocabulary in own speech and writing.
4.03 Use words that describe color, size, and location in a variety of texts: e.g., oral retelling, written stories, lists, journal entries of personal experiences.

Grade 1:
4.01 Select and use new vocabulary and language structures in both speech and writing contexts (e.g., oral retelling using exclamatory phrases to accent an idea or event).
4.02 Use words that name characters and settings (who, where) and words that tell action and events (what happened, what did ___ do) in simple texts.
4.03 Use specific words to name and tell action in oral and written language (e.g., using words such as *frog* and *toad* when discussing an expository text).
4.04 Extend skills in using oral and written language:
4.05 Write and/or participate in writing by using an author's model of language and extending the model (e.g., writing different ending for a story, composing an innovation of a poem).
4.06 Compose a variety of products (e.g., stories, journal entries, letters, response logs, simple poems, oral retellings).

Grade 2:
4.07 Compose first drafts using an appropriate writing process:

Grade 3:
4.02 Use oral and written language to:
4.05 Identify (with assistance) the purpose, the audience, and the appropriate form for the oral or written task.
4.06 Compose a draft that conveys major ideas and maintains focus on the topic by using preliminary plans.
4.07 Compose a variety of fiction, nonfiction, poetry, and drama selections using self-selected topics and forms (e.g., poems, simple narratives, short reports, learning logs, letters, notes, directions, instructions).
4.09 Produce work that follows the conventions of particular genres (e.g., personal narrative, short report, friendly letter, directions and instructions).
4.10 Explore technology as a tool to create a written product.

Related Stages Assessment Activities:
Stage Seven: *Making Sentences:* Building Sentences, Writing Sentences
Making Stories

- Stage Seven *Building Sentences* gives the learner a word wall so that she can demonstrate sentence-writing skills without using a keyboard. In *Making Stories*, the learner can write descriptions of familiar persons, places, or objects with the aid of a picture (included or custom) as a writing prompt. Written expression is accessible through an on-screen keyboard and text-to-speech feature. The text-to-speech option in Stage Seven activities can be used to "speak" the learner's words aloud.

5. THE LEARNER WILL APPLY GRAMMAR AND LANGUAGE CONVENTIONS TO COMMUNICATE EFFECTIVELY.

Kindergarten:
5.02 Use capital letters to write the word ***I*** and the first letter in own name.

Grade 1:
5.01 Use phonic knowledge and basic patterns (e.g., an, ee, ake) to spell correctly three-and four-letter words.
5.02 Apply phonics to write independently, using temporary and/or conventional spelling.
5.04 Use complete sentences to write simple texts.
5.05 Use basic capitalization and punctuation.

Grade 2:
5.01 Spell correctly.
5.02 Attend to spelling, mechanics, and format for final products in one's own writing.
5.03 Use capitalization, punctuation, and paragraphs in own writing.

Grade 3:
5.01 Use correct capitalization (e.g., geographical place names, holidays, special events, titles) and punctuation (e.g., commas in greetings, dates, city and state; underlining book titles; periods after initials and abbreviated titles; apostrophes in contractions).
5.02 Use correct subject/verb agreement.
5.03 Demonstrate understanding by using a variety of complete sentences (declarative, imperative, interrogative, and exclamatory) in writing and speaking.
5.05 Use a number of strategies for spelling (e.g., sound patterns, visual patterns, silent letters, less common letter groupings).

Related Stages Assessment Activities:
Stage Seven: *Making Sentences:* Building Sentences, Spelling and Grammar, Writing Sentences
Making Stories

- *Spelling and Grammar* is actually a collection of several activities, including: Spelling, Homonyms, Capitalization, Noun-Verb Agreement, Pronoun Use, Word Order, and a Custom option so the instructor can create sentences for the learner to correct.